

# CYBERSECURITY AT UMBC

UMBC is a leader in science and technology education and research whose faculty is at the forefront of innovative research in cybersecurity. UMBC is preparing and supporting Maryland's cybersecurity workforce, and is one of the few universities in Maryland designated as a Center for Academic Excellence in both Information Assurance Education and Research by the National Security Agency. UMBC is an ideal place to pursue education and training, foster innovative technologies, advance research and connect to networks of expertise in the cybersecurity field.



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[www.umbc.edu/cybersecurity](http://www.umbc.edu/cybersecurity)

# CYBERSECURITY AT UMBC



## ADVANCING THE CYBER WORKFORCE

### EDUCATION AND TRAINING

Through the Departments of Information Systems and Computer Science and Electrical Engineering, UMBC offers a range of degrees and certificates for both undergraduate and graduate students interested in cybersecurity, including Maryland's first Master of Professional Studies in Cybersecurity. UMBC students and alumni are actively recruited for cyber/defense industry internships, co-ops and full-time employment by agencies and contractors including Northrop Grumman, Lockheed Martin, CSC, SRA, ManTech and Booz Allen. UMBC students are prepared to fill critical roles in operational cybersecurity missions with advanced knowledge and skills acquired through our graduate programs in cybersecurity.

The UMBC Center for Cybersecurity Training delivers high quality cybersecurity education, training and certification preparation programs to working professionals and organizations. Courses range from entry-level to advanced, specialized topics and cover all aspects of computer network operations defense and attack.

- ▶ [www.umbc.edu/cyber](http://www.umbc.edu/cyber)
- ▶ [www.is.umbc.edu](http://www.is.umbc.edu)
- ▶ [www.cs.umbc.edu](http://www.cs.umbc.edu)
- ▶ [www.umbctrainingcenters.com](http://www.umbctrainingcenters.com)

## INNOVATING SECURITY TECHNOLOGIES

### RESEARCH

UMBC faculty expertise spans the disciplines of Computer Science, Information Systems, Computer Engineering, Electrical Engineering, Public Policy, Sociology, and Math. These faculty bring expertise and connections to areas such as:

- ▶ cryptography and secure voting
- ▶ analytics and privacy-preserving data mining
- ▶ policy-driven systems
- ▶ security of wireless networks, mobile systems, and sensor networks
- ▶ security of industrial control systems
- ▶ human computing interfaces for security and privacy
- ▶ visualization and threat detection

UMBC's Center for Information Security and Assurance (CISA) promotes research, education and sound internal practices in information security and assurance, and facilitates interactions with local area businesses, laboratories and government agencies. Through CISA's Cyber Defense Lab, UMBC students can research topics that would ordinarily be considered too dangerous for network and system resources, such as voting and cyber defense exercises.

- ▶ [www.is.umbc.edu/research](http://www.is.umbc.edu/research)
- ▶ [www.cs.umbc.edu/research](http://www.cs.umbc.edu/research)
- ▶ [www.cisa.umbc.edu](http://www.cisa.umbc.edu)

In support of the Governor's CYBERMARYLAND Initiative, UMBC co-founded the Maryland Cyber Challenge and Conference (MDC3) to encourage high school and college students to pursue careers and education through a statewide cyber-defense competition resulting in scholarship prizes.

- ▶ [www.mdc3.org](http://www.mdc3.org)

## GROWING CYBER BUSINESS

### BWTECH@UMBC

BWTECH@UMBC Research & Technology Park is a 71-acre community to the UMBC campus that hosts more than 70 companies and agencies engaged in research, entrepreneurship and economic development. The park, located in a federal HUBZone and state Enterprise Zone, is located only minutes from the BWI Thurgood Marshall Airport, downtown Baltimore, and federal agencies near Washington, DC. Programs such as the Advantage Incubator@bwtech and the Northrop Grumman Cync Program provide unique business incubation programs including business and technical support to early-stage companies working in cybersecurity and related domains, while the CyberHive and CyberMap offer innovative networking and business opportunities.

- ▶ [www.bwtechumbc.com](http://www.bwtechumbc.com)
- ▶ [www.bwtechumbc.com/advantage](http://www.bwtechumbc.com/advantage)
- ▶ [www.bwtechumbc.com/advantage/cync](http://www.bwtechumbc.com/advantage/cync)



# [www.umbc.edu/cybersecurity](http://www.umbc.edu/cybersecurity)